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High oil prices prompt new look at shale

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Associated Press

PARACHUTE, Colo. - The brush-covered landscape of buttes and desert just west of the Rockies, already dotted with oil and gas rigs, could be in store for another resource boom as the energy industry turns a fresh eye toward developing oil shale.

A reserve estimated at nearly 1 trillion barrels of oil buried deep in rock formations stretching from western Colorado into northeastern Utah and southwestern Wyoming may be a way to ease U.S. dependence on shrinking foreign oil supplies. The newly enacted energy bill was written to help open the way for research programs and commercial leasing of federal land containing oil shale.

Yet shale isn't a quick panacea to the nation's energy woes. This is oil that is locked up in rock, not deposits of liquid crude that are relatively easy to tap.

Companies have spent years researching how to melt oil out of rock, but it could be 2010 before any decide whether shale mining is commercially and environmentally feasible. It takes a large amount of water to recover the oil and the process can take months.

Many also worry about the effect a large-scale operation - particularly coupled with robust natural gas, coal and oil production already under way - would have on the environment, wildlife and the people who spent years recovering from the last shale bust in the early 1980s.

Amy Beasley, whose grandparents homesteaded on Parachute Creek near here, was just a child when major shale production began in the late 1970s. She has lived with the effects of the boom and the bust and, now, a surging interest in domestic natural resources driven of late by high crude oil prices and the effects of Hurricanes Rita and Katrina.

At her Old Mountain gift shop just off Interstate 70, Beasley welcomes economic development but worries about her family's water supply.

"I just wish they would have more compassion," she said of energy companies.

Pete Kolbensschlag, a director of the Colorado Environmental Coalition, said government leaders and residents recognize energy development is part of the landscape. The concern, he says, lies in balancing that with environmental protections and a move toward renewable energy resources.

"We know we cannot drill our way to energy independence," he said.

As the United States and other countries search for stable, reliable energy sources, the West is seeing new demand for natural gas, coal, uranium and oil - even if it's locked up in rock.

"There certainly has been a resurgence in mining, a resurgence almost unprecedented in modern times," said Luke Popovich, a spokesman for the National Mining Association. "We're in this sort of perfect storm where it seems all the factors of both domestic and offshore are suddenly in alignment."

The West's love-hate affair with oil shale has been waxing and waning for centuries. Legends are told of American Indians and pioneers who used the rock to light campfires, and a visitor information site in Parachute showcases the tale of a homesteader who built a fireplace out of shale only to burn down his house when he lit a fire for a housewarming party.

Shale oil is easy to see, appearing in dark, gray stripes within the brown rock. Most domestic resources are in the Green River formation under Colorado, Utah and Wyoming, and there were booms just after World War II and again in the 1960s.

When that one hit, Parachute was a farming and ranching community whose 300 residents felt safe enough to leave their doors unlocked at night. Roads were dirt, there was no police department and government was overseen by a part-time town administrator.

With the companies came thousands of workers who parked trailers where they could or slept in the streets, under bridges and even in root cellars, Parachute Mayor John Loschke recalled.

"This poor little community got slammed," he said.

Every day, streams of cars would head up a narrow, two-lane road carrying workers to shale mining operations in the buttes just west of town. Speculators bought up farm and ranchland in the surrounding valley.

There was suddenly new money for new schools, paved roads, a wastewater system and Exxon's worker housing development, which later became a retirement community called Battlement Mesa.

But when oil prices began to fall and government subsidies dried up, shale went south. Exxon shut down its \$5 billion project on May 2, 1982, locking the gates and putting 2,200 people out of work. Nicknamed "Black Sunday," it is a bitter reminder of the bust.

"It was a dramatic shock to the community, obviously. That money was flowing in here like blood to the veins," said Robert Loucks of Grand Junction, Colo., a former manager of oil shale operations here for Shell and Occidental Oil Shale.

Loucks' operation and other companies continued working for several years before closing, but the regional economy was plunged into a tailspin that has taken years to repair.

Western Colorado has worked hard to diversify its economy by emphasizing tourism, recreation activities and retirement options. And now energy development is back.

The natural gas boom in particular has brought a fresh group of companies and workers to the region, packing hotels, restaurants and homes. Loschke says Parachute even has rush-hour traffic congestion at its main intersection, where there still is no traffic light.

In Vernal, Utah, also hit hard by the shale bust, workers are wanted for jobs in everything from energy development to retail. The town's population of about 8,000 is expected to double in 10 years.

"You take a look around, every place as a 'Help Wanted' sign. Workers from the downtown businesses are going out to the oil fields because they pay so well," said Tom Nemec, a safety consultant for San Antonio-based Pioneer Drilling Co. "Right now, the economy's booming. Everybody's on the bandwagon."

In July, a manager of another oil company walked up to the counter in a Vernal McDonald's with an offer for jobs. Two cooks were hired on the spot for roughneck wages of \$18 an hour, plus a \$1,000 signing bonus.

"It happens to us on a regular basis," complained McDonald's supervisor Sandra Richins as she took a break from the breakfast grill. She raised wages to \$7 from \$6 an hour and offers health insurance, but still can't compete.

"I lose about five people a month to the oil fields - and that's been going on for the last three months," Richins said.

Analysts and industry observers say it isn't a question of whether shale oil can be produced - it can - but whether it is economically and commercially viable in large quantities.

There are two basic retrieval methods used in several countries including the United States, Estonia, Australia, Brazil and China.

One involves mining the rock and heating it to a high temperature in an above-ground facility called a retort. It leaves a lot of leftover shale for disposal and requires huge amounts of water for processing.

The other is an underground process in which the rock is heated beneath the surface. Although it would not require as much water, pollution of underground water supplies and the air remain possibilities.

Shell Exploration & Production Co. has been testing this method with buried heaters in a remote stretch of Colorado, about an hour's drive north of here.

Terry O'Connor, a Shell vice president, said the company believes the process will be economical as long as crude oil stays above \$30 a barrel, but the company is at least five years away from deciding whether to build a commercial-scale operation.

Near Vernal, Oil-Tech Inc. is using a retort to melt oil from shale. The privately held company has applied for a permit to mine on state land and is asking the federal government to let it use 30,000 tons of oil shale from a nearby mine.

Loucks says the technology is still several years in the future.

"We've been building plants for years, ever since at least 1920. Each one of them can get oil out of the rock," he said. "We know how to heat it up to 900 degrees but in no case have we ever shown that that may work and made a buck."

Still, many observers believe the West can handle an oil shale boom - and bust - if development is properly controlled. Communities have become more sophisticated with more diversified economies and the mix of people is broader.

"There isn't going to be any boom or bust," said Russell George, a native of nearby Rifle and head of the state Department of Natural Resources. "Nothing is going to happen very fast and frankly shouldn't."

EDITOR'S NOTE - The history of Western oil shale dates back centuries and has long intrigued energy companies looking to cash in on a domestic resource worth billions. But the shale industry has gone bust before and no one is sure whether oil can be melted out of underground rock in a way that makes financial sense. The Associated Press evaluates the potential of an oil shale comeback in the American West.

Associated Press Writer Paul Foy contributed to this report.

ON THE NET

National Mining Association: <http://www.nma.org>

Shell Exploration & Production Co.: <http://www.shell.com/home/Framework?siteIdeandp-en>

Oil-Tech Inc. <http://owwww.oiltechinc.com>

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